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09/252,326	02/18/1999	MARK G. PRESTOY	98-906	4365
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/252,326	Applicant(s) PRESTOY, MARK G.
	Examiner ANNAN Q. SHANG	Art Unit 2424

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

1) Responsive to communication(s) filed on 16 March 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-28 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-28 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No.(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, claim 1, line 16+, claim 17, line 22+, recites "...determining a fault condition when at least one of the video server and client devices does not respond to the echo message, and displaying a color coded fault indication on a display..." It is unclear as to "...determining a fault condition when at least one of the video server....does not respond..." and where the color coded fault indication is being display, i.e., the server display device or the client display device.

Response to Arguments

2. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection discussed below.

With respect to the rejection of the last office action, Applicant discusses the prior arts of record, amends claims and further argues that the prior arts of record do not teach the amended claims limitations. However as discussed above, the claims are hereby rejected under 112, second paragraph. Furthermore the Host Network System monitors the plurality of the STBs request, and inserts path information into a prefix that enable each network switch to interpret the prefix and select the next leg in the path needed to transmit the data block on its way to the required STB (col.5, line 47-col.6,

line 63, col.9, line 11-col.10, line 1+ and col.17, line 41-col.18, line 1+). The amendment to the claims necessitated the new ground(s) of rejection. **This office action is made Final.**

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6, 11, 12, 17, 20, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)**

As to claims 1 and 11, note the **Dewkett et al** reference figures 1 and 2, disclose scalable interactive multimedia server system for providing on demand data, comprising:

A massively parallel video server (figs.1-4); Massive Multimedia (MM) Distribution System or Server which includes a Host Server or Computer System (Host-SS) (figs. 1, 2 and col. 1, lines 2-13, col.3, lines 31-59 and col. 8, line 60-col.col. 9, line 23) and further includes:

A set of storage devices (Disk Drivers 107);

A plurality of nodes (Multimedia "MM" Adapters 106 interconnected by bus 105) configured to stream a plurality of video streams from one or more video titles stored in

the set of storage devices (Disk Drivers 107), each of the plurality of nodes comprising a processor (MM Controller 1-N), each of the processors running a video server program for streaming one or more of the video streams from one or more video titles stored in the set of storage devices, and the processors all having concurrent access to the set of storage devices for concurrently streaming the plurality of video streams (col.4, lines 38-62, col.5, line 3-col.6, line 24, col.7, lines 15-42, col.8, line 60-col.10, line 2, col.11, line 7-col.12, line 1+);

A to plurality of Set-Top-Boxes (STBs) 109 1-N “plurality of client devices,” that are configured to receive at least some of the plurality of video streams (col. 9, lines 11-63 and col. 10, lines 35-64), and further enables a very large number of STBs to independently interact with the MM System or Server;

A high capacity transport system (Network 108, col. 8, line 64-col. 9, line 10), which includes paths to a plurality of STBs 109 1-N, for transporting movies “video streams” from the massively parallel video server to the plurality of STBs 109 1-N; note that MM server system runs an operating software that controls various processors (controllers, CPUs, etc.) including a host computer system, etc., all interconnected by a bus to concurrently access multimedia storage devices to stream multimedia (movies, etc) to STBs and enables the various STBs to perform VCR-like functions as desired.

Dewkett teaches storing data blocks of movies on disk arrays and a plurality of processors which concurrently accesses the storage devices and combining the data blocks into data packets and transmits the data packets over a transport medium to

STBs for processing (abstract, col.9, lines 46-62, col.10, lines 35-45, line65-col.11, line 6, col.12, line 49-col.13, line 6, line 38-col.14, line 1+).

Dewkett further discloses a computer network system where the video server program configures a video session with a plurality of client devices by mapping a network (NW) address of each of the plurality of client devices to a virtual path identifier and a virtual circuit identifier using a path protocol and further discloses that the command control program may control the transfer of data packets according to any current network protocol (col.6, lines 15-63, col.12, line 62-col.13, line 47 and col.17, lines 54-65). Dewkett further discloses where the Host Network System monitors the plurality of the STBs request, and inserts path information into a prefix that enable each network switch to interpret the prefix and select the next leg in the path needed to transmit the data block on its way to the required STB (col.5, line 47-col.6, line 63, col.9, line 11-col.10, line 1+ and col.17, line 41-col.18, line 1+).

Dewkett is silent as to mapping an IP address of the plurality of client devices...

However, Dewkett discloses that the command control program may control the transfer of data packets according to any current network protocol (col.12, line 62-col.13, line 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Dewkett to include current network protocol (such as Internet protocol) or future network protocol to configure a video session with the plurality of client devices by mapping an address of the plurality of client devices

using the current network protocol to a virtual path identifier and virtual circuit identifier accordingly.

The modification of Dewkett, is silent as to storing and retrieving segments, "combining the segments stored in the set of storage devices into a plurality of video streams..."

However, **Eichelberger** discloses in figures 1-2, a video subsystem and further discloses storing and retrieving segments, combining the segments stored in the set of storage devices into a plurality of video streams for transmission via a dedicated connection or using packet switch network to a user (figs.1-2, col.1, lines 35-50 and line 60-col.1, line 1+).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Eichelberger into the system of Dewkett to efficiently store and retrieve video segments (portions) and efficiently transmit to a user via appropriate transmission medium the segments for processing accordingly.

If Applicant disagrees with the obviousness rejection of the teaching of command control program...to any current network protocol...., **Banks (6,139,197)** reference figure 1A, discloses a Video Server 102 with a video encoder 106 that streams real-time video on the fly to Client 110 using internet protocol (fig. 1 and col. 3, line 41-col.4, line 7 and col.9, lines 38-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Banks into the system of Dewkett, to

control the delivery of the video content on a limited bandwidth system using internet protocol (IP) address(es) or current network protocol address(es).

As to claim 4, Dewkett further discloses where one of the Host CPUs uses a controlled software to control the operation of the MM System by monitoring MM System, the high capacity transport system 108, and the various STBs 109 1-N (col. 9, lines 11-22 and line 63-col. 10, line 2).

As to claim 6, Dewkett further discloses where the plurality of nodes further comprises an interface module for formatting the video streams into cells and transmitting the cells on the high capacity transport system and a disk controller for retrieving the video titles from the set of storage devices (col.5, line 3-col.6, line 24, col.7, lines 15-42, col.8, line 60-col.10, line 2, col.11, line 7-col.12, line 1+)

As to claim 12, Dewkett further discloses where one or more of the plurality of client devices includes a personal computer (col. 7, lines 43-52).

Claim 27 is met as previously discussed with respect to claims 1 and 6.

As to claim 17, the claimed "A method for delivering interactive multimedia form storage devices..." is composed of the same structural elements that were discussed with respect to claim 1.

Claim 20 is met as previously discussed with respect to claim 4.

Claim 28 is met as previously discussed with respect to claims 1 and 6.

5. Claims 2, 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)** as applied to claims 1, 17 and 23 above, and further in view of **Ehreth (6,286,142)**.

As to claim 2, 18 and 26, Dewkett as modified by Eichelberger, fail to explicitly teach a set of display devices connected to the plurality of client devices respectively for displaying the video streams.

However, **Ehreth** discloses a method for communicating video signals to a plurality of television sets 100 (fig. 1 and col. 2, line 59-col. 3, lines 15).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Ehreth into the system of Dewkett as modified by Eichelberger, to provide the user with multiple display devices to enable the user view other programs simultaneously as desired.

6. Claims 3, 5, 10, 13, 15, 19, 23 and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)** as applied to claims 1 and 17 above, and further in view of **Banks (6,139,197)**.

As to claims 3 and 13, Dewkett as modified by Eichelberger, teach all the claimed limitation as previously discussed with respect to claim 1, but fails to explicitly teach an encoder for encoding video and for storing the encoded video on the MM System.

However, note the **Banks** reference figure 1A, discloses a Video Server 102 with a video encoder 106 that streams real-time video on the fly to Client 110 (fig. 1 and col. 3, lines 41-58).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Banks into the system of Dewkett as modified by Eichelberger, to provide an encoder to encode the video to appropriate compression rate, to meet bandwidth requirements.

As to claims 5 and 15, Dewkett fails to explicitly teach a web server which interface Internet network and for storing data.

However, Banks further discloses where Video Server 102, can be implement as a web server, which interfaces Internet network and provide services to Client 110 (col. 3, line 51-col. 4, line 2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Banks into the system of Dewkett as modified by Eichelberger to provide a web server to enable clients to access web pages and other Internet services.

As to claim 10, Dewkett further discloses a plurality of STBs 109 1-N each with a processor for executing the interactive display "a browser program" to interacting with MM System to receive the requested movie and for controlling the movie with VCR-like function (col. 10, lines 35-58 and col. 14, lines 16-26), but fails to explicitly teach retrieving data from a web server, which has been previously discussed with respect to claim 5.

Claim 19 is met as previously discussed with respect to claim 3.

Claim 23 is met as previously discussed with respect to claim 5.

Claim 24 is met as previously discussed with respect to claim 13.

7. Claims 7-9, 21 and 22, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)** as applied to claims 1 and 17 above, and further in view of **Hluchyj (6,151,325)**.

As to claims 7-9, Dewkett as modified by Eichelberger, fail to explicitly teach high capacity transport system comprising one or more asynchronous transfer mode (ATM) switching systems, which pre-established connections associated with the plurality of client devices, respectively and further pre-established bi-directional connections associated with the plurality of client devices, respectively.

However, **Hluchyj** discloses a high-capacity multistage switching system that includes ATM switch that dynamically establishes a connection using as part of the connection a permanent virtual connection, i.e., a pre-established connection path to transfer respective user data over the appropriate pre-established connection path through the ATM switch (col. 7, lines 20-55 and col. 13, line 57-col. 14, line 10).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hluchyj into the system of Dewkett as modified by Eichelberger, to provide an ATM switching system that pre-establishes connection path or bi-directional connection path for transfer of data, between a server and a client, securely on a private virtual connection or pre-established connection, and

furthermore transmit data faster on a wide area network and assure quality of service (QoS).

Claims 21 and 22, are meet as previously discussed with respect to claims 7-9.

8. Claims 14 and 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)** and further in view of **Banks (6,139,197)** as applied to claims 3 and 19 above, and further in view of **Cannon et al (6,014,706)**.

As to claim 14, Dewkett as modified by Eichelberger and Banks fail to explicitly teach off-line encoder for encoding off-line video.

However, Cannon et al discloses a Video Camera 106 and an encoder 110 that performs encodes video off-line or live and transfers to a Video Server 102 for transmission to Client 104 (fig. 1 and col. 7, lines 10-34).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Cannon into the system of Dewkett as modified by Eichelberger and Banks to provide a video camera for encoding live video and transferring to a video server, thereby enabling the video server to live video to users.

Claim 25 is met as previously discussed with respect to claim 14.

9. Claim 16, is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dewkett et al (5,646,676)** in view of **Eichelberger (4,616,263)** and further in view of

Banks (6,139,197) as applied to claim 5 above, and further in view of **Fukui et al (6,052,715)**.

As to claim 16, Dewkett as modified by Eichelberger and Banks, fail to explicitly teach where the web server sending data in HTML format to clients.

However, note the **Fukui** reference figure 1, discloses a where server 6 which provides data in the form of HTML to Information Terminal 1 (figure 1, col. 5, lines 30-33 and col. 6, lines 9-17).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Fukui into the system to Dewkett as modified by Eichelberger and Banks, to provide a web server with HTML data to enable retrieval of other reference entities within the HTML document via a communication network.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goldszmidt et al (6,195,680) disclose client-based dynamic switching of streaming servers for fault-tolerance and load balancing.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANNAN Q. SHANG** whose telephone number is **(571)-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative or access** to the automated information system, **call 800-786-9199 (IN USA OR CANADA) or 571-272-1000**.

/Annan Q Shang/

Primary Examiner, Art Unit 2623

Annan Q. Shang